

Claims

What is claimed is:

1. (currently amended) A ~~machine for air filtration that is~~ self cleaning air filtration machine ~~and a method for using same~~ comprising:
 - a filter comprising a motor driven belt or disk or counter rotating disks that are perforated;
 - a spray bar;
 - a recirculation pump and supply line;
 - a wet tank;
 - a ultra sonic transducer;
 - ultra violet submersible bulbs;
 - a water fill port;
 - a liquid level sensor;
 - a liquid and sediment drain port; and
 - a power source.

2. (currently amended) A self cleaning air filtration machine ~~for air filtration that is self cleaning and a method for using same~~ as claimed in claim 1 further comprising a subsonic transducer on said wet tank.

3. (currently amended) A ~~{{(machine for)}} self cleaning~~ air filtration ~~that is self-cleaning and a method for using same~~ machine as claimed in claim 1 further comprising a treated ~~(high tooth textured and or stickified)~~ surface on said belt, disk or disks.

4. (currently amended) A ~~{{(machine for)}} self cleaning~~ air filtration ~~{{that is self cleaning}}~~ machine and a method for using same as claimed in claim 1 further comprising a chemical injection port on said wet tank.

5. (currently amended) A process for ~~{{self cleaning}}~~ air filtration ~~that is self-cleaning machine and a method for using same~~ comprising the steps of:

passing an airstream to be filtered through a self cleaning machine for air filtration comprising;

a filter comprising a motor driven belt or disk or counter rotating disks that are perforated;

a spray bar;

a recirculation pump and supply line;

a wet tank;

a ultra sonic transducer;

ultra violet submersible bulbs;

a water fill port;

a liquid level sensor;

a liquid and sediment drain port;

a power source;

a air diffuser;

a toxic and noxious gas detection and recognition and radiation detection

device;

a automatic safety shut down device with safety charcoal filter;

a audible and visual alarm; and

a ultraviolet saturation chamber.

6. (currently amended) A process for {{self cleaning}} air filtration ~~that is self cleaning machine and a method for using same~~ as claimed in claim 5 {{further comprising}} wherein the {{machine}} process for air filtration further comprises {{a}} the steps of: ~~a air diffuser;~~

~~a toxic and noxious gas detection and recognition and radiation detection device;~~

~~a automatic safety shut down device with safety charcoal filter;~~

~~a audible and visual alarm; and~~

~~a ultraviolet saturation chamber.~~

passing an airstream to be filtered through a self cleaning machine for air filtration comprising,

a secondary wet filter,

a secondary air diffuser,

a secondary ultraviolet saturation chamber.

7. (currently amended) A ~~{{multiple step}}~~ process for air filtration that is self cleaning as claimed in claim 5 ~~{{6 further comprising}}~~ wherein the {{machine}} process for air filtration further comprises:

~~a secondary wet filter,~~

~~a secondary air diffuser,~~

~~a secondary ultraviolet saturation chamber.~~

passing an airstream to be filtered through a self cleaning machine for air filtration comprising,

a inline dryer assembly.

8. (currently amended) A ~~{{multiple step}}~~ process for air filtration that is self cleaning ~~multiple step with a variety of feasible options~~ as claimed in claim 6 ~~further comprising a inline dryer assembly~~ wherein the {{machine}} process for air filtration further comprises:

passing an airstream to be filtered through a self cleaning machine for air filtration comprising,

the option of {{any and all}} dependent claims 6 or 7 ~~in whatever configuration is most beneficial~~ to be placed within the process where needed to achieve maximum efficiency.

9. (new) A process for air filtration comprising the steps of passing an airstream to be filtered through a self cleaning air filtration machine comprising:

a filter comprising a motor driven belt or disk or counter rotating disks that are perforated;

a spray bar;

a recirculation pump and supply line;

a wet tank;

a ultra sonic transducer;

ultra violet submersible bulbs;

a water fill port;

a liquid level sensor;

a liquid and sediment drain port; and

a power source.

10. (new) A process for air filtration comprising the steps of passing an airstream to be filtered through a self cleaning air filtration machine as claimed in claim 1 further comprising a subsonic transducer on said wet tank.

11. (new) A process for air filtration comprising the steps of passing an airstream to be filtered through a self cleaning air filtration machine as claimed in claim 1 further comprising a treated surface on said belt, disk or disks.

12. (new) A process for air filtration comprising the steps of passing an airstream to be filtered through a self cleaning air filtration machine as claimed in claim 1 further comprising a chemical injection port on said wet tank.